

Application Serial No: 10/529,154
Responsive to the Office Action mailed on: October 16, 2007

REMARKS

This Amendment is in response to the Office Action mailed on October 16, 2007. Claims 1 and 5 are amended. Claim 1 is amended editorially to include the features of claim 4. Claim 5 is amended to track the amendments to claim 1. Claim 4 is cancelled without prejudice or disclaimer. No new matter is added. Claims 1-3 and 5-10 are pending.

Claim Objections:

Claims 1-10 are objected to for informalities. In particular, claim 1 is objected to for the feature of "a chamber" and the feature of "a cooling chamber". Claim 1 is amended editorially to replace the term "a chamber" with "a main body" to distinguish the feature from the "cooling chamber" of claim 1. Withdrawal of this objection is requested.

Claim Rejections:

Claims 1-3, 6, 8 and 10 are rejected as being anticipated by Lazar (US Patent No. 2,747,381). Claims 4, 5, 7 and 9 are rejected as being unpatentable over Lazar in view of Scofield (US Patent No. 2,957,067). These rejections are traversed. Claim 1 is amended to include the features of claim 4. Accordingly, Applicant responds to both of these rejections, to the extent that they apply, to amended claim 1 below.

Claim 1 is directed to a cooling device that requires, among other features, a cooler, a cooling chamber and a fan. Claim 1 also requires that rotation of the fan generates a discharged flow of cold air discharged from the cooler to the cooling chamber through an aperture and a sucked flow of cold air sucked from the cooling chamber to the cooler through the aperture.

Lazar does not teach or suggest these features. Lazar teaches that cold air in the refrigerator (8) is sucked to an open portion at the lower portion of the casing (2) and then flows unidirectionally and continuously through the unit (28), the fan (58), the opening (66) and the cooling chamber, in that order (see column 2, lines 35-42 and Figure 1 of Lazar). Thus, the refrigerator (8) does not have the configuration of claim 1, whereby rotation of the fan generates a discharged flow of cold air discharged from the

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cooler to the cooling chamber through the aperture and a sucked flow of cold air sucked from the cooling chamber to the cooler through the aperture.

Scofield does not overcome these deficiencies. Scofield is directed to an oven in which air passes through the heater coils (24 and 25) (see column 3, lines 27-28 of Scofield). The rotation of the fan (26) causes air to flow sequentially and continuously through heater coils (24 and 25) and through an aperture (28) to a baking compartment (10). Because the aperture (28) has a diameter that is sufficiently large with respect to the diameter of the fan, the airflow directed from the fan (26) to the baking compartment (10) stays only in the vicinity of the aperture (28). Thus, even if a cooler is substituted for the heater coils (25 and 26) and cold air is substituted for the high temperature air, the configuration of Scofield cannot teach or suggest an airflow in which air that has reached the heater coils (24 and 25) flows back to the aperture (28) through the space between the wall (27) and the wall (16).

Also, there is no motivation in Lazar to modify its configuration to have an oversized fan aperture structure, as suggested in the current rejection. The configuration of Lazar requires that air flow unidirectionally and continuously to allow hot air from the cooling chamber to pass through the cooler efficiently in order to provide efficient cooling in the cooling chamber (see column 2, lines 35-47 of Lazar). This configuration in which air flows unidirectionally and continuously from a cooling chamber through a cooler is common to previously and currently cited references, including: Figure 1 of US Patent No. 2,993,349; Figure 2 of US Patent No. 3,359,751; Figure 1 of US Patent No. 3,365,118; and Figures 1, 11 and 12 of US Patent No. 5,819,552, and is intended to promote efficient cooling in the cooling chamber. Thus, nowhere does Lazar or any other cited prior art contemplate using an oversized fan aperture structure, as taught in Scofield, at the expense of deteriorating cooling efficiency. For at least these reasons claim 1 is not suggested by the combination of Lazar and Scofield and should be allowed. Claims 2, 3 and 5-10 depend from claim 1 and should be allowed for at least the same reasons described above. Applicant does not concede the correctness of this rejection.

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Conclusion:

Applicant respectfully asserts that claims 1-3 and 5-20 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.



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Respectfully submitted,

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